AMENDMENTS TO THE CLAIMS

The listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims

1. (Previously Presented) A telecommunication or data communication node comprising a number of plug-in units, a first number of the plug-in units hosting a device processor, the first number of the plug-in units comprising a first and a second flash memory bank, and the node further comprises a separate traffic and control system, characterised in that one of the memory banks is adapted to be in an upgradeable state and the other memory bank is adapted to be in a operable state, where the states are mutually interchangeable, the node comprising redundant traffic buses and the traffic and control system being separated on intra boards and inter boards respectively.

2. (Cancelled)

3. (Previously Presented) System according to claim 1, characterised in that the traffic buses are Time Division Multiplex, TDM, buses having redundant switching functions, the Plesi-synchronous Digital Hierarchy, PDH, and Synchronous Digital Hierarchy, SDH, synchronisation buses are redundant and the fan systems are redundant.

4. (Previously Presented) System according to claim 1, characterised in that said telecommunication or data communication node's software consists of the following major component types:

a. basic node software, BNS, that realises the control and management of said node and its Traffic Node Basic Node Hardware Building Blocks, TN BNH BB, residing on Application Plug-in Units, APU's,

b. application node processor software, ANS, which is a control software for the application and for all software on a Node Processor Unit, NPU,

c. application device processor software is located on the APU, provided that the APU houses one or more processors, it interfaces with ANS.

5. (Cancelled)

6 - 22. (Cancelled)

23. (Previously Presented) System according to claim 1, characterised in that said telecommunication or data communication node comprises a plurality of distributed power sensors sensing a voltage level on said plug-in units and said boards.

24. (Previously Presented) A method within telecommunication or data communication node where the telecommunication or data communication node comprises a number of plug-in units, a first number of the plug-in units hosting a device processor, the first number of the plug-in units comprising a first and a second flash memory bank, and the node further comprises a separate traffic and control system, characterized in the step of upgrading one of the memory banks and operating the other memory bank, where the process of upgrading and operation is mutually interchangeable between the memory banks, establishing redundant traffic buses and separating traffic and control system on intra boards and inter boards respectively.

25 (Previously Presented) A method according to claim 24, characterised in that hot swapping/removing/replacing a plug-in unit comprises the step of:

a. pushing or pulling a first switch indicating a plug-in unit removal,

b. wait for a first signal indicating an activation of the first switch,

c. when the first signal becomes active, denoting a start of a board removal interval time τ_2, and

d. removing the plug-in unit during the board removal interval time.

26. (Previously Presented) A method according to claim 25, characterised in that replacing said plug-in unit includes the step of removing said plug-in unit during the board removal interval τ_2 and within a second interval, a board replacement interval τ_6, adding a new plug-in unit to said telecommunication or data communication node.

27. (Previously Presented) A method according to claim 26, characterised in that if the board removal interval time, τ_2, expires without removal of a plug-in unit and the plug-in unit is an application plug-in unit, taking the plug-in unit will into service and performing an application plug-in warm restart.

28 - 29. (Cancelled)

30. (Previously Presented) A method according to claim 25, characterised in that a basic node software and an application node software interacts according to the following steps during removal/replacement/swapping of plug-in units:

a. pushing or pulling the first switch indicating a board removal causing the basic node software to inform the application node software that a plug-in unit shall be taken out of service,

b. the application node software executes a number of commands as a response to the information given from the basic node software,

c. thereafter, when the application node software has finished the number of commands it will report to the basic node software that the plug-in unit can be removed.

d. thereafter the basic node software is deallocating a peripheral component interconnect device drivers for the plug-in unit and indicates the deallocation with a visible signal, such as turning on a LED, and

e. the basic node software places the application plug-in unit in cold reset.

31. (Previously Presented) A method according to claim 24, characterised in installing temperature sensors in a serial peripheral interface building block for temperature supervision within said telecommunication or data communication node and measuring a temperature on all boards within said telecommunication or data communication node supporting two levels of temperature alarms.

32 (Previously Presented) A method according to claim 31, characterised in the step of separating the two levels of temperature alarms, into a first alarm indicating high temperature, and a second alarm indicating excessive temperature.

33 (Previously Presented) A method according to claim 32, characterised in setting an operational status of a severity level of the temperature alarm on the plug-in units to a following levels according to crossed temperature thresholds:

a. setting severity to minor if the temperature is above the high temperature threshold and below the excessive temperature threshold, or

b. setting severity to critical if the temperature is above the excessive temperature threshold.

34 (Previously Presented) A method according to claim 32, characterised in that operation of the node or plug-in units for temperatures following a temperature cycle measured by said sensors, ranging from a normal temperature interval to an excessive temperature interval and back to the normal temperature interval comprises the steps of:

a. running the node or plug-in units in normal operation, when the temperature is below the high temperature threshold,

b. automatically switching of control functions, unfaltering the traffic functions, and sending an alarm to a OAM system when the temperature is in the high temperature interval and rising from the normal temperature interval, control functions are automatically switched off,

c. automatically shutting down both control and traffic related hardware, sending an alarm to the OAM, this situation equals a cold reset when the temperature is in the excessive area interval rising from the high temperature interval,

d. restarting said node without control functions running, status is sent to the OAM when the temperature is in the high temperature interval, falling from the excessive temperature interval, and

e. returning said node and/or plug-in unit to normal operation when the temperature is in the normal temperature interval falling from the high temperature interval.

35. (Previously Presented) A method according to claim 34, characterised in that step b further comprises the step of setting application plug-in units to power save modus which is equal to setting the plug-in unit to a warm reset.

36. (Previously Presented) A method according to claim 34, characterised in that step e further comprises the step of:

restricting the step of return to normal operation to incidents where the temperature is below the high temperature threshold for a period longer than said board removal interval τ_2.

37. (Previously Presented) A method according to claim 24, characterised in that supervising one or more cooling fans by monitoring fan status and signaling the fan status on a serial peripheral interface bus from a power filter unit.

38. (Previously Presented) A method according to claim 37,

characterised in supervising individual fans and indicating a failure if one fan fails.

39. (Previously Presented) A method according to claim 24, characterised in that said telecommunication or data communication node is monitoring correct local power on one or more application plug-in units.

40. (Previously Presented) A method according to claim 39, characterised in indicating a power failure situation by a visual signal such as turning off a power LED or lamp.

41 - 43. (Cancelled)

44. (Previously Presented) A method according to claim 24, characterised in that setting the first and second memory bank in a passive and an active state/modus respectively where the states/modes are mutually interchangeable between the first and second memory bank.

45. (Previously Presented) A method according to claim 24, characterised in that software upgrading the telecommunication or data communication node from a first version n to a second version n+1 comprises the following steps:

a. downloading the second version n+1 to a passive memory bank, and

b. writing a pointer to the passive memory bank making the passive memory bank the active one and consequently making the previous active memory bank passive.

46. (Previously Presented) A method according to claim 44, characterised in that step a further comprises the step of executing a test-run on the second version n+l.

47. (Previously Presented) A method according to claim 24, characterised in configuring a software system release with three software modules includes the step of:

a. establishing a traffic node basic node software in a node processor software load module.

b. establishing an application node software in a node processor software load module, and

c. establishing an application device software, such as application plug-in units with a device processor.

48. (Previously Presented) A method according to claim 47, characterised in software upgrading said telecommunication or data communication node from one system software release version, n, to another system software release version n+1.

49. (Previously Presented) A method according to claim 24, characterised in that installation of said telecommunication or data communication node comprises at least the following major steps:

a. equipping an application module magazine with a number of plug-in units where at least one of them is a node processor unit,

b. turn on the power for said node,

c. press a board removal switch,

d. perform a configuration check of the node processor unit,

e. check if radio link configuration is necessary, if necessary then radio link frequencies have to be configured and/or antenna alignment have to be configured,

f. executing manual or automatic security and software upgrade set up

g. exit the installation modus, and

h. perform a save of the configuration and enter normal operation for said telecommunication or data communication node.

50. (Previously Presented) A method according to claim 49, characterised in that further at step d deleting the configuration and replace it with factory settings if configuration is present, if configuration is replaced a software upgrade have to be preformed.

51. (Previously Presented) A method according to claim 49, characterised in that the manual set up comprises the following actions

a. initiating a manual upgrading if a software upgrade is necessary and displaying the upgrade progress, and

b. displaying the inventory data to an operator.

52. (Previously Presented) A method according to claim 49, characterised in that the automatic set up comprises the following steps:

a. specifying a configuration file,

b. loading the configuration file and append,

c. performing an automatic upgrade if a software upgrade is necessary and displaying the upgrade progress,

d. displaying at least the inventory data to an operator.

53. (Cancelled)

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